

ABSTRACT OF THE DISCLOSURE

Techniques are provided for accessing an instance of a recreatable object in a shorter-duration memory based on a reference located in a longer-duration memory, where the shorter-duration memory is associated with a call. One technique involves (1) locating, within the shorter-duration memory, a context structure associated with the call; (2) locating an XREF pointers array based on data cached within the context structure; (3) determining whether the XREF pointers array includes a pointer associated with the reference; and (4) if the XREF pointers array includes a pointer associated with the reference, then following the pointer to locate the instance within the shorter-duration memory. Another technique, which may be employed in addition to or instead of the first technique, involves: (1) when a class is activated, generating, within the shorter-duration memory, a class object associated with the class; (2) storing, within the class object, data for locating instances of recreatable objects associated with the class; (3) to dereference the reference, performing the steps of (a) determining that the reference is associated with the class; and (b) using the data within the class object to locate the instance of the recreatable object.